SECTION 7: EYE CARE

Concern	Care/Test	Frequency
Eye Care	♦ Perform dilated eye exam by an ophthalmologist or optometrist.....	*Type 1*: If age ≥ 10, within 3 – 5 years of onset, then annually *Type 2*: At diagnosis, then annually; two exceptions exist

Dilated Eye Exams

Diabetes is a leading cause of blindness. Dilated eye exams are therefore essential for the early detection of blinding diabetic eye disease. Studies have shown that early detection and proper treatment can reduce the risk of diabetic retinopathy and blindness by 50-60%. In addition, proper glycemic control can reduce the risk of progression of retinopathy by 34-76%. For each two percent decrease in A1c, there is a 50-75% reduction in complications. Not only do diabetic retinopathy screening and treatment programs result in increased years of sight, but they are clearly also cost-saving interventions.

People with Type 1 diabetes should have an initial dilated eye exam within 3-5 years of onset of diabetes or at ten years of age, whichever occurs later. Subsequent exams should be conducted every year thereafter. People with Type 2 diabetes should receive a dilated eye exam at diagnosis and then every year thereafter.

Two exceptions to the annual dilated eye exam may be made at the discretion of the ophthalmologist or optometrist:

1) Annual screening is generally not indicated for people with Type 1 diabetes within the first 3-5 years of diagnosis or before the age of ten years.
2) People with Type 2 diabetes may have a dilated exam *on alternate years* if ALL of the following requirements are met:
   - Recent and ongoing A1c levels are within one percent of normal for a given lab (this implies that A1c levels have been measured within the last six months)
   - Consistent blood pressure < 130/80 mmHg
   - A dilated eye exam within the last year, revealing no retinopathy

An ophthalmologist or optometrist fully trained in recognizing diabetic retinopathy should provide these eye exams. Abnormal findings should result in either prompt treatment or timely referral for the management of diabetic retinopathy. Any person with persistent visual complaints should be referred more frequently.

Referral to an Ophthalmologist or Optometrist and Coordination of Care

It is necessary that the ophthalmologist or optometrist communicate the results and recommendations of each eye exam to the primary care provider, in addition to the person with diabetes. It would be beneficial if the primary care provider would provide the eye care specialist with the person's current A1c and blood pressure values.

Essential Patient Education for Eye Disease

All people with diabetes should be informed of the risks of eye disease. Educational strategies should take into consideration literacy level/skill and special educational or cultural needs, while respecting the individual's willingness to change behavior. Education may include, but is not limited to, the following:

- Regular, dilated eye exams are necessary to prevent loss of vision.
- An eye (vision) screening is in no way an alternative to the annual dilated eye exam.
- There are vision-threatening symptoms that should be reported immediately (e.g., floaters, shadows, or persistent blurred vision).
- Retinopathy often shows no symptoms until the fairly advanced stages of disease.
- Early detection and timely, appropriate treatment significantly reduces the risk of vision loss.
- Diligent glycemic control can reduce the risk of onset or progression of diabetic retinopathy by 35-75%.
- Other aspects of diabetes management can affect retinopathy, such as poor glycemic control, hypertension, and elevated lipids.
- Diabetic retinopathy may accelerate during pregnancy. A baseline dilated comprehensive eye exam is necessary *before* conception. Women should be counseled on the risk of development and/or progression of retinopathy. This risk is present up to one year following childbirth.
- People with low vision should be given information about the availability of resources and support for the visually impaired.
- Stress prevention strategies, such as improving glycemic control and obtaining annual retinal exams.

Helpful Tool Included in This Section

- Diabetes Eye Exam Consultation Form

Eye Care – Question and Answer

Q: Are non-dilated fundus photo exams sufficient for screening retinopathy?

A: No. Fundus photos of any type are not a substitute for a dilated fundus exam. Non-dilated fundus photography is outdated technology and considered not as reliable in detecting retinopathy as the seven standard field photography. A dilated fundus exam is more than just a good look at the retina, involving a comprehensive eye exam comprised of an evaluation of 12 elements of the eye and refraction. Evaluation of the fundus through a dilated pupil (by fundus biomicroscopy) is just one of the 12 elements. For areas with limited access to qualified experts, fundus photos are better than doing nothing to screen for retinopathy; however, this should not be the case in Wisconsin.

References

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10) Diabetes Control and Complications Trial Research Group. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. *NEJM*. 1993;329:977-986.
11) UK Prospective Diabetes Study (UKPDS) Group. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet*. 1998;352:837-853.
12) Diabetes Control and Complications Trial Research Group. Effect of pregnancy on microvascular complications in the diabetes control and complications trial. *Diabetes Care*. 2000;23:1084-1091.

DIABETES EYE EXAM CONSULTATION FORM

Patient: Please complete section A. Take this form to your eye care specialist when you go for your eye exam. Ask him/her to complete Section B. If you use a Personal Diabetes Care Record, other wallet card or other form to keep track of the dates and results of your diabetes exams, take this information with you and show it to your eye care specialist.

SECTION A: PATIENT INFORMATION

Patient Name: _____ **Date of Birth:** ____/____/_____

Patient Address: _____

Patient Phone Number: (_____) _____ – _____

Name of Doctor or Primary Care Provider (PCP): _____

PCP Address: _____

PCP Phone Number: (_____) _____ – _____ **PCP Fax Number:** (_____) _____ – _____

Eye Care Specialist: Please complete section B. Mail or fax the form back to the PCP.

SECTION B: RESULT OF DIABETES EYE EXAM

Exam date: _____/_____/_____ **Were the patient's eyes dilated for this exam?** ❒ **Yes** ❒ **No**

- ❒ **No diabetic retinopathy**
- ❒ **Diabetic retinopathy requiring no treatment**
- ❒ **Diabetic retinopathy requiring treatment**
- ❒ **Other eye disease (specify):** _____
- ❒ **Report sent to patient's PCP**

Follow-up Recommendations: _____

_____

_____

Eye Care Specialist's Name: _____ **Signature:** _____

Address: _____

Phone Number: (_____) _____ – _____ **Fax Number:** (_____) _____ – _____

Please fax or mail the completed form to the patient's doctor or primary care provider.

Extra copies can be downloaded at:
http://www.metastar.com/professional/docs/DiabEyeExamConsultForm.pdf